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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,660	12/31/2003	Jung-Suk Lee	11038-144-999	1620

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EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT	PAPER NUMBER
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3661

MAIL DATE	DELIVERY MODE
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06/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/750,660

Applicant(s)

LEE, JUNG-SUK

Examiner

Christine M. Behncke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the Remarks filed 2 March 2007, in which claims 1-3 were presented for examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al., US 6,125,316, in view of Holbrook et al., 6,094,612.

Sasaki et al. discloses a control method for an automatic transmission, comprising: determining whether an engine is operating (figure 2); checking a shift range selection state when the engine is in a normal operation (column 3, lines 7-28); calculating an inspection speed by multiplying an output axle speed of the automatic transmission by an expected gear ratio when said common operating elements are operating (column 4, lines 29-59); determining whether a difference between an input axle speed of the automatic transmission and the inspection speed is within a predetermined range for a prescribed period of time (column 4, lines 55-67 and column 5, lines 24-46). Sasaki et al. does not explicitly disclose determining if the wrong gear

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ratio is a reverse gear, however it was well known in the transmission art that the reverse gear ratio of an automatic transmission is has the highest gear ratio, as compared to, for example, first through fourth gears of the forward drive range. Because the invention of Sasaki et al. teaches a general method of determining a wrong gear ratio, one of ordinary skill in the art determining if the vehicle has slipped into the reverse gear would have expected the reverse gear, it would have been obvious to use the determination system of Sasaki et al. to accurately and easily detect the gear shift failure into a reverse gear (column 2, lines 28-36). Sasaki et al. further does not disclose ascertaining whether the shift range is explicitly in an N or D range or in the midst of a N-D change control. However, Holbrook et al. teaches a shift schedule and monitoring system for monitoring the gear state of an automatic transmission, comprising: determining whether the selected range state is in an N, D, and R range (figure 1) and ascertaining whether the shift range is in N or D range and determining if the range is in the midst of an N-D change control (column 4, line 45-column 5, line 11, column 6, lines 58-65). Sasaki et al. further discloses that when a wrong gear is detected the driver is notified by an indicator or buzzer of the wrong gear, but does not disclose stopping the operation. However, Holbrook et al. suggests that if it is detected that the gear state does not indicate the proper gear, the switches to a shut down shift schedule when a problem is indicated (figure 4, column 6, lines 22-39). It would have been obvious to one of ordinary skill in the art to combine the teachings of Holbrook et al. with the invention of Sasaki et al. because as Holbrook suggests, the different operating modes require different shifting schedules, which is essential to known when determining the proper

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gear, and further by providing a shutdown shift schedule and recovery pattern to be used when a wrong gear is determined, this allows the driver to increase the number of gear states to increase driveability and safer operation of the automatic transmission (column 2, lines 9-23)

Sasaki et al. further discloses a step of determining whether the vehicle is running at a predetermined speed between the operation element checking step and the inspection speed calculating step, and carrying out the inspection speed calculating step if the vehicle speed is within a predetermined speed (column 6, lines 24-50).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571) 272-8103. The examiner can normally be reached on 8:30 am- 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMB



THOMAS BLACK
SUPERVISORY PATENT EXAMINER